



MARINE MAMMAL COMMISSION

Marine Mammal Science and Conservation Priorities for NMFS

Summary of key components of the Commission's report

NB: The Marine Mammal Commission's Priorities Report is near completion, however not yet finalized. This document is provided for the purposes of discussion at the Commission's 2014 Annual Meeting.

Purpose of the report: The objective of the Priorities report is to provide guidance to the National Marine Fisheries Service (NMFS), Congress, and others involved in federal funding decisions to enhance the effectiveness of research and management actions focused on the conservation of marine mammals and marine ecosystems. The broad scope of challenges under the Marine Mammal Protection Act (MMPA) mandate requires the engagement of a wide array of federal agencies and collaborators for NMFS to effectively address its priorities. Despite new threats to marine mammals and a corresponding increase in NMFS's workload over the past several years, the trend in funding for marine mammal science and management programs has been decreasing, or at best remained flat. This budget trend is all the more alarming given the increasing complexity and scale of threats to marine mammals.

Regional and HQ meetings: As a starting point in this project, the Commission held a series of public meetings between August 2012 and April 2013 in each coastal region in which NMFS operates, as well as at NMFS headquarters. At those meetings, the Commission heard about critical marine mammal program needs and priorities from agency scientists, managers, and interested citizens. Several themes emerged during the meetings with NMFS, including the value of maintaining long-term time series of data, the fundamental need for baseline information on marine mammal populations, the challenge of assessing and addressing broader and more complex threats – such as climate change, the importance of strengthening regional marine mammal stranding programs, and the need for improved collaboration across agencies.

Guiding principles for prioritization: The Commission proposes five guiding principles as the foundation for setting marine mammal research and conservation priorities. These principles, which are underpinned by and mandated in legislation and which reflect societal values, are informed by scientific and traditional knowledge of marine mammals and ecosystems, and are supported by best practices in conservation and management.

Guiding Principle #1: Prevent loss of species, habitats, and ecosystem function

Guiding Principle #2: Conserve and protect marine mammals as ecosystem components

Guiding Principle #3: Rigorously monitor marine mammal populations, habitats, and ecosystems

Guiding Principle #4: Conserve marine mammal species and stocks whether they occur in domestic, international, or foreign waters

Guiding Principle #5: Minimize impacts of human activities on marine mammals

Prioritization criteria: The guiding principles are appropriate for setting large-scale, long-term priorities for federal marine mammal programs. However, resources are insufficient to carry out all high-priority activities simultaneously, and the principles do not readily translate into priorities at the level at which agencies execute their operational plans. The Commission offers the following criteria for deciding which species/stocks and activities are the most pressing and therefore of highest priority:

- **Value.** Species/stocks of exceptional biological importance, such as being particularly isolated evolutionarily, or important culturally or economically.
- **Status.** Species/stocks that are rare, at low numbers, declining rapidly, geographically isolated, or designated for special conservation status under the Endangered Species Act (ESA) or MMPA.
- **Vulnerability.** Species/stocks that are exceptionally vulnerable to single or multiple stressors or conversely, the stressor is particularly intense and/or extensive.
- **Uncertainty.** Lack of knowledge of a species/stock's biology or ecology, demographic rates, vulnerability to human threats, and/or capacity to recover from impacts.
- **Institutional capacity and support.** Research and management actions that require few resources, are likely to have significant benefits, or that have strong support from government, stakeholders, and/or the public.

Recommended areas of priorities: The Commission suggests five general areas of priorities for marine mammal science and conservation, based on the framework provided in this report: (1) Monitor and address impacts of climate change and ocean acidification on marine mammals; (2) Give special consideration to research needs and management efforts to species/populations for which there is greatest concern (i.e., north Pacific right whale, Hawaiian monk seal, vaquita, Cook Inlet beluga whale, and North Atlantic right whale); (3) Assess and mitigate direct and indirect interactions with fisheries domestically and internationally, including the use of trade measures to the fullest extent feasible to mitigate bycatch, as fisheries impacts remain the greatest global threat to marine mammals; (4) Establish a system for prioritizing the assessment of status and trends of stocks and improve the acquisition and usefulness of data collected by the marine mammal health and stranding program; and (5) Establish comprehensive monitoring programs in all areas of offshore oil and gas and renewable energy exploration and development to assess and minimize impacts of these activities, particularly in challenging environments such as the Arctic.

Conclusions: The foreseeable future of federal budgets suggests that it is unlikely they will provide all the resources needed for increasing marine mammal science and conservation needs. Funding shortages for marine mammal science and stewardship will continue to severely impact NMFS's ability to meet its mandates under the MMPA and ESA. In addition, opportunities to benefit from partnerships across federal agencies and with the private sector will continue to be limited unless regulatory or legislative changes are implemented to facilitate the sharing of funding, data, and other resources. Nonetheless, establishing a process for setting priorities of the agency will help to ensure that progress is made on long-term responsibilities for marine mammal science and conservation while also addressing the unanticipated short-term crises that arise.